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EXAMINER

FOWLKES, ANDRE R

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,664

Applicant(s)

SULLIVAN, GARY E.

Examiner

Andre R. Fowlkes

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4. 6) ☐ Other:

DETAILED ACTION

1. Claims 1-17 are pending.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 400, in figure 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because "The invention is a system method" should be "The invention is a system and method" on p. 17, line 2. Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities:
 - "The invention is a system method" should be "The invention is a system and method" on p. 1, line 6.
 - The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. The browse-executable code "www.HAVi.com" is on p. 2, line 4.

- "An embedded DCM" should be "An uploaded DCM" on p. 6, line 12.
- "to an external network 350" should be "to an external network 400" on p. 8, line 18.
- "The external network 350" should be "The external network 400" on p. 8, line 18.
- "The HAVi network 350" should be "The HAVi network 100" on p. 8, line 19.
- "to the external network 350" should be "to the external network 400" on p. 8, line 23.
- the sequence "32b-34b" is unclear; the components should be listed sequentially on p. 8, line 28.
- "The processor 30" should be "The processor 30a" on p. 9, line 5.
- "the network 120" should be "the network 400" on p. 9, line 11.
- "presented with the its" should be "presented with its" on p. 9, line 16.
- "control modules 34-34b" should be "control modules 34 and 34b" on p. 9, line 16.
- "one of a plurality usable devices" should be "one of a plurality of usable devices" on p. 10, line 6.
- "external network 350" should be "external network 400" on p. 10, lines 10-11.
- "network 350" should be "network 400" on p. 10, line 12.
- "for a first 30b" should be "for a first device 30b" on p. 10, line 13.
- the sequence "30-30b" is unclear; the components should be listed sequentially on p. 10, line 14.

- the sequence "32b-34b" is unclear; the components should be listed sequentially on p. 10, line 15..

- the sequence "34-34b" is unclear; the components should be listed sequentially on p. 10, line 29.

Appropriate correction is required.

Claim Objections

5. Claim 9 is objected to because of the following informalities:

- "one of a plurality usable devices" should be "one of a plurality of usable devices", on line 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 recites the limitation "storing the device control module" in line 3. There is insufficient antecedent basis for this limitation in the claim. The examiner is interpreting line 1 as though "the device control module comprises" should be "the control module comprises".

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, 9 - 11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lea, International Publication Number WO 99/35753 (Art of Record).

As per claim 1, Lea discloses:

- A system for providing extended functionality for a HAVi compatible device, (p. 4 lines 3-5, "The present invention further provides a system and method within a home audio/visual network that allows for expanded functionality for set-top-box applications"), **the HAVi compatible device being connectable to a HAVi network**, (p. 4 lines 13-14, "the communication architecture used is the home audio/visual initiative (HAVI) format"), **the extended functionality defined by control data stored on a remote server external to the HAVi network, the remote server being connected to an external network, the external network comprising a network external to the HAVi network**, (p. 5 lines 9-15, "Some devices such as a set-top-box ... or digital television act as both devices in the home network, communicating with other devices, and as gateways to external service providers (e.g., the internet, digital TV provider, cable provider, etc.) outside of the home ... it is possible to download one or more application programs (control data) from a service provider that are run on the

set-top-box. The application program generally is intended to provide some features or services to the home network.”).

- **an external network connection device for providing data communications between the HAVi network and the remote server; the external network connection device connectable to the external network**, (p. 5 lines 9-12, “Some devices such as a set-top-box ... or digital television act as both devices in the home network, communicating with other devices, and as gateways to external service providers (e.g., the internet, digital TV provider, cable provider, etc.) outside of the home”).

- **the external network connection device for receiving the control data**, (p. 5 lines 13-14, “In the set-top-box of the present invention it is possible to download one or more application programs (control data)”).

- **a control module for providing the extended functionality for the HAVi compatible device based on the control data**, (p. 6 lines 1-3, “The downloaded application is then provided with a mechanism to send requests to the DCM that are used to interact and control the actual devices of the home network”).

As per claim 2, the rejection of claim 1 is incorporated and further Lea discloses that **the control module comprises a functional control module**, (p. 5 lines 6-7, “A DCM or device control module is the software abstraction used by the present invention to control devices within the home audio/video network”, and a DCM code unit contains the DCMs and functional control modules (FCMs) for a device).

As per claim 3, the rejection of claim 2 is incorporated and further, Lea discloses that **the control module further comprises a device control module**, (p. 5 lines 6-7, "A DCM or device control module is the software abstraction used by the present invention to control devices within the home audio/video network").

As per claim 4, the rejection of claim 3 is incorporated and further, Lea discloses that **the device control module comprises a processor connected to the HAVi network, the processor having a memory module for storing the device control module; the processor further comprising the external network connection device** (Figure 17B, shows a device with a processor that is connected to the HAVi network, a memory device that contains the DCMs, and an external network connection).

As per claim 9, Lea discloses:

- **a system comprising a first usable device comprising one of a plurality usable devices capable of being connected to a local network, each usable device being capable of receiving commands from a user of the local network**, (p. 4 lines 9-13, "Several consumer electronics products (usable devices) ...can be coupled within the network to communicate together via a standard bus... This allows devices of the network to control one another and obtain information regarding one another").

- **an external network connection device for providing data communications between the local network and a remote server connected to an external network, the external network connection device connectable to the external network**, (figure 17B shows an external network connection providing data communications between the local network and an external network), **the external**

network connection device for receiving control data from the remote server, the control data defining extended functionality for a first of the one or more of the plurality of usable devices, (p. 5 lines 13 – 15, “it is possible to download one or more application programs from a service provider that are run on the set-top-box. The application program generally is intended to provide some features or services to the home network”).

- a control module for providing the extended functionality for the first usable device based on the control data (p. 6 lines 1-3, “The downloaded application is then provided with a mechanism to send requests to the DCM that are used to interact and control the actual devices of the home network”).

As per claim 10, the rejection of claim 9 is incorporated and further Lea discloses that **a second of the usable devices comprises a processor having a device control module** (figure 17B shows a usable device with a processor and a device control module (DCM)).

As per claim 11, the rejection of claim 10 is incorporated and further Lea discloses that **the device control module comprises a first functional control module**, (p. 5 lines 6-7, “A DCM or device control module is the software abstraction used by the present invention to control devices within the home audio/video network”, and a DCM code unit contains the DCMs and functional control modules (FCMs) for a device), **the device control module for presenting the extended functionality to a user of the processor for controlling the first usable device, thereby allowing the user to use the extended functionality**, (p. 6 lines 1-3, “The downloaded application

(extended functionality) is then provided with a mechanism to send requests to the DCM that are used to interact and control the actual devices of the home network”).

As per claim 13, Lea discloses:

- **A method for providing extended functionality for a HAVi compatible device**, (p. 4 lines 3-5, “The present invention further provides a system and method within a home audio/visual network that allows for expanded functionality for set-top-box applications”), **the HAVi compatible device being connectable to a HAVi network**, (p. 4 lines 13-14, “the communication architecture used is the home audio/visual initiative (HAVI) format”), **the extended functionality defined by control data stored on a remote server external to the HAVi network, the remote server being connected to an external network, the external network comprising a network external to the HAVi network**, (p. 5 lines 9-15, “Some devices such as a set-top-box ... or digital television act as both devices in the home network, communicating with other devices, and as gateways to external service providers (e.g., the internet, digital TV provider, cable provider, etc.) outside of the home ... it is possible to download one or more application programs (control data) from a service provider that are run on the set-top-box. The application program generally is intended to provide some features or services to the home network.”).

- **providing data communications between the HAVi network and the remote server**, (p. 5 lines 9-12, “Some devices such as a set-top-box ... or digital television act as both devices in the home network, communicating with other devices,

and as gateways to external service providers (e.g., the internet, digital TV provider, cable provider, etc.) outside of the home”).

-receiving the control data from the remote server; and providing the extended functionality for the HAVi compatible device based on the control data, (p.5 lines 14 – 20, “The application program generally is intended to provide some features (extended functionality) or services to the home network ... the present invention allows the creation of downloadable applications that are transmitted from a service provider ... to the consumer premises”).

As per claim 14, the rejection of claim 13 is incorporated and further Lea discloses **providing the user with the capability of controlling the HAVi compatible device with the extended functionality**, (p. 5 lines 22-23, “ the present invention provides a generic method of making available services and devices that are present in the network”, and the devices include the set-top-box which is a HAVi compatible device with extended functionality).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lea, International Publication Number WO 99/35753 (Art of Record) in view of Ludtke, U.S. Patent No. 6,237,049.

As per claim 5, the rejection of claim 4 is incorporated and further Lea doesn't explicitly disclose that **the processor is for presenting the device control module to a user of the HAVi network for providing the user with the capability of controlling the HAVi compatible device with the extended functionality.**

However, Ludtke, in analogous environment, discloses that **the processor is for presenting the device control module to a user of the HAVi network for providing the user with the capability of controlling the HAVi compatible device with the extended functionality**, (figure 2a shows the proxy device which contains a processor, and col. 3 lines 26 – 28, "The proxy device can extend the existing functionality of devices as well as provide new functionality for them").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ludtke into the system of Lea so that **the processor is for presenting the device control module to a user of the HAVi network for providing the user with the capability of controlling the HAVi compatible device with the extended functionality.** The modification would be obvious because one of ordinary skill in the art would want to provide the device control module (DCM), from a processor so that the processor can provide access to the DCM ,in such a way, that the DCM can be used and shared without corruption.

As per claim 6, the rejection of claim 1 is incorporated and further Lea doesn't explicitly disclose that **the HAVi compatible device comprises a legacy device wherein the extended functionality is for causing the HAVi compatible device to function as a contemporary device with respect to a user of the HAVi network.**

However, Ludtke, in an analogous environment discloses that **the HAVi compatible device comprises a legacy device wherein the extended functionality is for causing the HAVi compatible device to function as a contemporary device with respect to a user of the HAVi network**, (col. 2 lines 53 – 67, "it would be advantageous to provide a method and system that enables new functionality to be provided in the field to existing (legacy) consumer electronic media devices networked together by the IEEE 1394 serial communication bus ... the present invention provides these advantages").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ludtke into the system of Lea so that **the HAVi compatible device comprises a legacy device wherein the extended functionality is for causing the HAVi compatible device to function as a contemporary device with respect to a user of the HAVi network.**

The modification would be obvious because one of ordinary skill in the art would want to get contemporary functionality from their existing legacy devices without having to purchase new, up-to-date devices.

As per claim 12, the rejection of claim 10 is incorporated and further Lea doesn't explicitly disclose that **the extended functionality comprises a plurality of extended functions for controlling the first usable device; two or more device control modules each comprising a plurality of functional control modules, each functional control module comprising a subset of the plurality of extended functions, the plurality of usable devices comprising two or more processors, each of the device control modules for presenting selectively to one of the two or more processors, thereby allowing a user of each of the two or more processors to control the first device based on the respective subset of extended functions of the respective functional control modules of the device control module presented to the respective processor.**

However, Ludtke, in an analogous environment, discloses that **the extended functionality comprises a plurality of extended functions for controlling the first usable device**, (col. 3 lines 26 – 28, "The proxy device can extend the existing functionality of devices as well as provide new functionality for them), **two or more device control modules each comprising a plurality of functional control modules, each functional control module comprising a subset of the plurality of extended functions**, (col. 22 lines 30-33, "(a) proxy service ... (has) control over HAVi devices", and proxy devices use device control modules (DCMs) to facilitate control over HAVi devices. A DCM code unit contains the functional control modules (FCMs) for a device, (col. 22 line 36, "(each FCM is responsible for) "controlling one subunit of functionality"), **the plurality of usable devices comprising two or more processors,**

each of the device control modules for presenting selectively to one of the two or more processors, thereby allowing a user of each of the two or more processors to control the first device based on the respective subset of extended functions of the respective functional control modules of the device control module presented to the respective processor, (Figure 2A shows that each proxy device contains a processor. Figure 2C shows a usable device, Set-Top-Box 13, that contains two proxies. And proxies contain multiple DCMs that are used to provide device specific functionality).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ludtke into the system of Lea so that **the extended functionality comprises a plurality of extended functions for controlling the first usable device; two or more device control modules each comprising a plurality of functional control modules, each functional control module comprising a subset of the plurality of extended functions, the plurality of usable devices comprising two or more processors, each of the device control modules for presenting selectively to one of the two or more processors, thereby allowing a user of each of the two or more processors to control the first device based on the respective subset of extended functions of the respective functional control modules of the device control module presented to the respective processor.** The modification would have been obvious because one of ordinary skill in the art would want to use devices with multiple

processors in order to have access to multiple extended functions, of as many devices as possible, simultaneously.

As per claim 15, the rejection of claim 13 is incorporated and further claim 15 is a method claim corresponding to claim 6 and is rejected for the reason set forth in the rejection of claim 6.

9. Claims 7, 8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lea, International Publication Number WO 99/35753 (Art of Record) in view of Ludtke, U.S. Patent No. 6,237,049, in further view of Van Der Meulen et al (Van Der Meulen), International Publication Number WO 99/4969 (Art of Record).

As per claim 7, the rejection of claim 6 is incorporated and further Lea doesn't explicitly disclose that **the HAVi compatible device comprises a compact disk player not having built in ability for presenting artist and song information for a compact disk inserted into the compact disk player.**

However, Ludtke, in an analogous environment, discloses that **the HAVi compatible device comprises a compact disk player not having built in ability for presenting artist and song information for a compact disk inserted into the compact disk player**, (abstract lines 2-13, "The present invention operates within a network of consumer electronic media devices (such as) television ... compact disc device ... increasing their original capabilities", and col. 2 lines 53 – 67, "it would be advantageous to provide a method and system that enables new functionality to be

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provided in the field to existing consumer electronic media devices networked together by the IEEE 1394 serial communication bus ... the present invention provides these advantages").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ludtke into the system of Lea so that **the HAVi compatible device comprises a compact disk player not having built in ability for presenting artist and song information for a compact disk inserted into the compact disk player.** The modification would have been obvious because one of ordinary skill in the art would want to display the usefulness of their invention by extending the functionality of a common legacy device, in this case, a compact disk player not having the ability for presenting artist and song information for a compact disk.

Lea further doesn't explicitly disclose that **the control data is for presenting artist and song information for the compact disk to the user.**

However, Van Der Meulen, in an analogous environment, discloses that **the control data is for presenting artist and song information for the compact disk to the user**, (p. 6 line 32 – p. 7 line 4, "the unique identifier that is associated with commercial CDs ... (is provided) to the information source ... to obtain detailed information regarding each commercial CD, such as title, performer, etc").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Van Der Meulen into the system of Lea so that **the control data is for presenting artist and song**

information for the compact disk to the user. The modification would have been obvious because one of ordinary skill in the art would want to use the control data to get up-to-date functionality from their existing CD player, without having to purchase a new, up-to-date CD player.

As per claim 8, the rejection of claim 7 is incorporated and further Lea doesn't explicitly disclose that **the control data comprises artist and song information matched to one or more identification codes read from the compact disk such that the artist and song information may be presented to the user for selection.**

However, Van Der Meulen, in an analogous environment, discloses that **the control data comprises artist and song information matched to one or more identification codes read from the compact disk such that the artist and song information may be presented to the user for selection**, (p. 6 line 31 – p. 7 line 2, "If the content source is a CD or DVD, the material 311 includes the unique identifier that is associated with commercial CDs ... the receiver provides the identification to the information source ... (to) obtain detailed information regarding each commercial CD, such as title, performer, etc").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Van Der Meulen into the system of Lea so that **the control data comprises artist and song information matched to one or more identification codes read from the compact disk such that the artist and song information may be presented to the user for selection**
The modification would have been obvious because one of ordinary skill in the art would

want a simple and universal technique to such that artist and song information may be presented to the user for selection.

As per claim 16, the rejection of claim 15 is incorporated and further claim 16 is a method claim corresponding to claim 7 and is rejected for the reason set forth in the rejection of claim 7.

As per claim 17, the rejection of claim 16 is incorporated and further Lea doesn't explicitly disclose **reading one or more identification codes from the compact disk and matching the one or more identification codes with the control data to present the artist and song information such that the artist and song information may be presented to the user for selection based on the identification code.**

However, Van Der Meulen, in an analogous environment, discloses **reading one or more identification codes from the compact disk and matching the one or more identification codes with the control data to present the artist and song information such that the artist and song information may be presented to the user for selection based on the identification code**, (p. 6 line 31 – p. 7 line 4, "If the content source is a CD or DVD, the material 311 includes the unique identifier that is associated with commercial CDs ... the receiver provides the identification to the information source ... (to) obtain detailed information regarding each commercial CD, such as title, performer, etc. Alternatively a user can enter such information, or provide direction to the other sources of information regarding this material").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Van Der Meulen into the system of Lea to allow **reading one or more identification codes from the compact disk and matching the one or more identification codes with the control data to present the artist and song information such that the artist and song information may be presented to the user for selection based on the identification code.** The modification would have been obvious because one of ordinary skill in the art would want the convenience of being able to select an artist or song based on the identification code.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre R. Fowlkes whose telephone number is (703)305-8889. The examiner can normally be reached on Monday – Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703)305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

ARF

Wm. 2
WBI 2/16/01
primary patent Exam. 2